

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of conveying a data packet over a packet network from a first server to one or more authorized recipient servers, the method comprising:

(i) a first server, storing a list comprising one or more non-duplicated random numbers;

(ii) sending a copy of said list to an authorized recipient server by secure communication means;

(iii) selecting a number from said list of stored random numbers and including said selected random number in a data packet to be sent to said authorized recipient server wherein said selected random number has not previously been selected and included in a data packet to be sent; and

(iv) sending said data packet to said authorized recipient server.

2. (Currently Amended) A method according to Claim 1, further including:

(v) receiving an acknowledgement message including a sequence number;

(vi) identifying the position of said selected random number within said list of stored random numbers from step (iii);

(vii) comparing said received sequence number with said identified position; and

(viii) re-sending said data packet to said authorized recipient server if, at step (vii), said sequence number does not match said identified position.

3. (Previously Presented) A method according to Claim 2, wherein, at step (v), if said acknowledgement message is not received within a predetermined time period after sending said data packet at step (iv), said data packet is resent to said authorized recipient server.

4. (Previously Presented) A method of conveying a data packet over a packet network from a first server to one or more authorized recipient servers, the method comprising:

(a) receiving by secure communication means at an authorized recipient server, a list comprising one or more unique non-duplicated random numbers, and storing said list;

(b) receiving at the authorized recipient server a data packet including a random number that is included in said list of authentic;

(c) sending a message acknowledging receipt of said data packet if said received included number is contained within said stored list of one or more non-duplicated random numbers and if said included number was not included in an earlier received data packet.

5. (Previously Presented) A method according to Claim 4, wherein, at step (c), said acknowledgement message includes a sequence number indicative of the position of said included number within said stored list.

6. (Previously Presented) A server, arranged to convey data packets over a packet network, the server comprising:

a packet network interface;

a store for storing a list comprising one or more non-duplicated random numbers;

secure communication means for sending a copy of said stored list to a predetermined destination;

selecting means operable to select a number from said stored list of random numbers and to include said selected random number in a data packet to be sent wherein said selected random number has not previously been selected and included in a data packet to be sent; and

routing means operable to send said data packet to said predetermined destination via said interface.

7. (Previously Presented) A server according to Claim 6, further comprising:

acknowledgement means operable, on receipt of an acknowledgement message including a sequence number, to trigger said routing means to re-send said data packet if said sequence number does not match the position of said selected random number within said stored list.

8. (Previously Presented) A server according to Claim 6 further comprising:

timeout means operable to trigger said routing means to re-send said data packet if a message acknowledging receipt of said data packet is not received within a predetermined time period after sending of said data packet by said routing means.

9. (Previously Presented) A server according to Claim 7, further comprising:

alerting means to generate an alert message in the event that said data packet is re-sent.

10. (Previously Presented) A server, arranged to convey data packets over a packet network, the server comprising:

a packet network interface;

secure communication means for receiving a list comprising one or more non-duplicated random numbers;

a store for storing said received list; and

acknowledging means operable, on receipt of a data packet including a number that is

included in said list if authentic, via said interface, to send a message acknowledging receipt of said data packet if said included number is contained within said stored list and if said included number was not included in an earlier received data packet.

11. (Previously Presented) A server according to Claim 10, wherein said acknowledging means includes inserting means operable to include a sequence number in said acknowledgement message, said sequence number being indicative of the position of said included number within said stored list.

12. (Previously Presented) A method for reducing the possibility that an unauthorized data packet is conveyed over a network of interconnected servers in a packet data communication network, said method comprising:

generating a list of unique data values and storing said list at a first server;

securely sending a copy of said list to at least one other server authorized to communicate data packets with said first server and also locally storing said received copy at said at least one other server;

including at least one selected not previously used member of said stored list of data values in an authorized data packet being sent from a sending server to a receiving server; and

accepting a received data packet at a receiving server only if said included data value is present in said locally stored list and has not been previously used.

13. (Previously Presented) A method as in Claim 12 wherein said unique data values in the list are random data values.

14. (Previously Presented) A method as in Claim 12 wherein said included member of the list is selected from a random position in the list.

15. (Previously Presented) A method as in Claim 12 wherein :
said unique data values in the list are random data values; and
said included member of the list is selected from a random position in the list.
16. (Previously Presented) A method as in Claim 12 wherein the receiving server sends back to the sending server acknowledgement data for an accepted data pager identifying the position of the accepted packet's included data value in said list.
17. (Previously Presented) A method as in Claim 16 wherein the sending server re-sends a data packet if its acknowledgement data does not correctly identify the position of its included data value in said list.
18. (Previously Presented) A method as in Claim 16 wherein the sending server re-sends a data packet if correct acknowledgement data is not received within a pre-determined time after being earlier sent.
19. (New) A method as in claim 1 further comprising, at a receiving server:
(v) comparing at least some of a received data packet to a locally stored list of non-duplicated random numbers; and
(vi) if said comparing finds a matched random number, then checking to see if that matched random number has been previously used and, if not, identifying the position of the matched number in said list and sending an acknowledgment message back to the packet sender including data identifying the position of the matched number in said list.
20. (New) A server as in claim 6 further comprising:
means for comparing at least some of a received data packet to a locally stored list of non-duplicated random numbers; and

means for checking to see if a matched random number has been previously used and, if not, identifying the position of the matched number in said list and sending an acknowledgement message back to the packet sender including data identifying the position of the matched number in said list.

21. (New) A method as in claim12 further comprising:

comparing at least some of a received data packet to a locally stored list of non-duplicated random numbers; and

if said comparing finds a matched random number, then checking to see if that matched random number has been previously used and, if not, identifying the position of the matched number in said list and sending an acknowledgement message back to the packet sender including data identifying the position of the matched number in said list.